

CASE STUDY

# Expanding Cellular Network Coverage

TO ACCOMMODATE MULTIPLE CARRIERS





## Client Profile

**A 200,000 square-foot hospital does not have across-the-board communication capabilities due to a single-carrier** Distributed Antenna System (DAS) that only supports AT&T. The hospital's mission is to provide quality and comprehensive care to all patients, but the lack of an all-inclusive network **slows operations and creates communication barriers.**

## QUICK SPECS



**INDUSTRY**  
HEALTHCARE



**VENUE SIZE**  
200,000 SQ FT



**CAPABILITIES**  
LTE AND 5G



**CARRIERS SUPPORTED**  
ALL NETWORKS



**SOLUTION**  
VERTEX DAS  
IMPLIMENTATION

# Identifying the Core

**The hospital's DAS allowed only one provider to function** and the limited cellular network coverage made quick retrieval of important patient data nearly impossible. As more and more professionals bring their own devices to work, there are new rules that impact communication. For medical facilities, the Bring Your Own Device (BYOD) model has changed the way information is transmitted.

**Because of the popularity of BYOD, new doctors, nurses and hospital personnel often chose where to work based on coverage.** For this hospital to attract new staff, we needed to create a neutral host that supported multiple carriers. Our work kept the hospital in sync with other medical campuses that allowed multiple carriers.

## THE PROBLEM'S EFFECT

The lack of full cellular network coverage not only slowed down overall productivity but also created a frustrating atmosphere where physicians literally could not communicate fast and effectively with colleagues or check on test results. The limited DAS also blocked hospital administrators from conducting business and streamlining day-to-day operations. To add to this problem, hospital visitors could not update family members on patient conditions in real-time, which is not advantageous for top-quality care.

The hospital's network barrier proved not conducive to the across-the-board communication that the hospital needed to thrive. **To ensure that patients received the best care and the staff functioned at the highest level, a new system had to be put in place.**



# Overcoming the Challenge

The challenge was to expand from a single-carrier network and create a turnkey solution that allowed clear and uninterrupted communication throughout the hospital complex.

No matter what devices were used, the hospital's ultimate success depended on unblocked communication that saved time and allowed for better patient care and employee working conditions.

If the building allowed for comprehensive wireless coverage, the medical staff could work together across the complex. In addition, patients would receive higher-quality treatment with the use of multiple physicians' opinions and expertise.

## WHAT WE NEEDED TO DO

After consulting with the original equipment manufacturer, Vertex took steps toward expansion that would support all wireless networks. We listened to the specific needs of the hospital IT teams and the staff and **created a solution that improved the hospital holistically.**



## THE GOAL

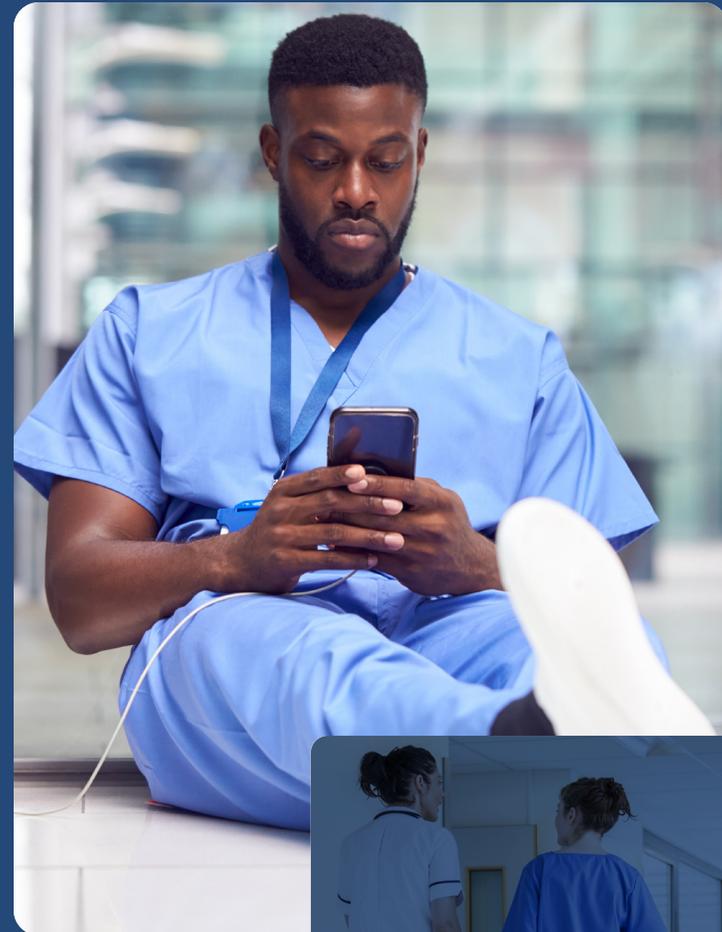
Vertex then set out to design a new DAS that allowed doctors to consult and check test results, visitors to update their families and administrators to convey vital information to specific areas of the hospital.

**Since the average hospital size is roughly 75,000 square feet, our challenge required a thorough installation and assessment.**

## WHERE WE STARTED

To begin, we took over project management and worked with carriers and the hospital to coordinate a mutually beneficial plan for expansion.

We then installed a new system that solved the single-carrier problem. **From start to finish, we ensured that our solution allowed comprehensive communication across the entire facility.**



# The Results

As with any medical organization, fast and seamless communication is key to success. As hospitals grow quality wireless communication networks are becoming a requirement to attract the top medical professionals.

With ubiquitous communication, patients receive better care, family members are satisfied and hospitals establish themselves as leading institutions.

Our permanent solution helped set the framework for this growth. The new DAS allowed the entire building to communicate without disruption and overall improved the hospital's functions for the long haul.

## WHAT THE CLIENT SAW

As a result, the medical staff performed better with working mobile devices and patients received higher-quality treatments. With our cellular network coverage solutions in place, the overall quality of life for patients and their families improved.





From healthcare to education, we meet institutional needs through network implementation, wifi enablement and more. Whatever it takes to keep your institution running efficiently, We are there. Interested in seeing how Vertex can help your company's connectivity needs? **Get in touch today.**

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